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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/346,256	07/01/1999	MAMORU SATO	B208-1038	2193

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ROBIN BLECKER & DALEY
2ND FLOOR
330 MADISON AVENUE
NEW YORK, NY 10017

EXAMINER

WISDAHL, ERIC D

ART UNIT	PAPER NUMBER
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2615

DATE MAILED: 11/19/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/346,256

Applicant(s)

SATO ET AL.

Examiner

Eric D Wisdahl

Art Unit

2615

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) 9-11 is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-8 and 12-20 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☒ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. ____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1 – 4, 8, 12 – 15, 19 and 20 are rejected under 35 U.S.C. 102(e) as being anticipated by Lassiter (U.S. Patent 6, 624, 846).

Regarding Claim 1, Lassiter discloses a camera control system comprising:

- first image pickup means for picking up an image of an object through a wide-angle lens having distortion, to output a moving image (Column 16 lines 30 – 40);
- image processing means for performing projective transformation processing to correct distortion of the moving image outputted from said first image pickup means (Column 16 lines 30 – 40);
- second image pickup means having no distortion, for outputting a moving image (Column 5 lines 18 – 57, Column 7 line 7 – Column 8 line 19);
- display means for displaying the moving image processed by said image processing means, and for superimposing and displaying, on the displayed moving image, a rectangular frame indicative of an image-pickup area of said second image pickup means (Figures 5, 6 and 8, Column 7 line 7 – Column 8 line 19);

Art Unit: 2615

- designating means for designating a desired rectangular area within the moving image displayed by said display means (Figures 5, 6 and 8, Column 16 line 41 – Column 18 line 2); and
- control means for controlling at least one of panning, tilting and zooming of said second image pickup means in such a way as to pick up an image corresponding to the rectangular area designated by said designating means (Column 9 lines 27 – 36, Column 16 line 30 – Column 18 line 2).

Regarding Claim 2, Lassiter discloses a camera control system according to claim 1, wherein:

- said display means displays, on a common screen, the moving image processed by said image processing means and the moving image outputted from said second image pickup means (Column 10 line 43 – Column 11 line 3).

Regarding Claim 3, Lassiter discloses A camera control system according to claim 1, wherein:

- a position and a size of the rectangular frame displayed by said display means are determined on the basis of a parameter outputted from said second image pickup means (Column 17 line 44 – Column 18 line 2, “constraints imposed by the video device”).

Regarding Claim 4, Lassiter discloses A camera control system according to claim 1, further comprising:

- frame rate control means for making a frame rate of the moving image outputted from said second image pickup means higher than a frame rate of the moving image processed by said image processing means, before the moving images are outputted to said display means (Column 13 lines 8 – 32).

Regarding Claim 8, Lassiter discloses a camera control system according to claim 1, wherein:

- said wide-angle lens having distortion for use with said first image pickup means is a fisheye lens (Column 16 lines 30 – 40).

Regarding Claim 12, see examiners notes claim 1.

Regarding Claim 13, see examiners notes claim 2.

Regarding Claim 14, see examiners notes claim 3.

Regarding Claim 15, see examiners notes claim 4.

Regarding Claim 19, see examiners notes claim 8.

Regarding Claim 20, see examiners notes claim 1.

Art Unit: 2615

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 5 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lassiter (U.S. Patent 6, 624, 846) in view of Driscoll, jr. et al. (U.S. Patent 6, 593, 969)

Regarding Claim 5, Lassiter discloses a camera control system according to claim 1, wherein:

- said first image pickup means includes a plurality of image pickup means, and said image processing means processes and combines moving images outputted from said plurality of image pickup means into one moving image (Column 11 line 66 – Column 12 line 40).

However, Lassiter fails to disclose the situation wherein:

- said first image pickup means includes a plurality of image pickup means, and said image processing means processes and combines moving images outputted from said plurality of image pickup means into one moving image **with a wide angle lens** as is necessary in the first image pickup means.

Driscoll, jr. teaches:

- said first image pickup means includes a plurality of image pickup means, and said image processing means processes and combines moving images outputted from said plurality of image pickup means into one moving image **with a wide angle lens** (Figure 5).

Art Unit: 2615

Such an arrangement would be advantageous in providing an image of sufficient resolution to enable the camera operator to reliably decipher the portions of the target scene to be captured by the control scene, or non-distorted camera.

Therefore, it would have been obvious to one of ordinary skill in the art to include the said first image pickup means includes a plurality of image pickup means, and said image processing means processes and combines moving images outputted from said plurality of image pickup means into one moving image with a wide angle lens so as to provide an image of higher resolution.

Regarding Claim 16, see examiners notes claim 5.

Claims 6 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lassiter (U.S. Patent 6, 624, 846).

Regarding Claim 6, Lassiter fails to disclose a camera control system according to claim 1, further comprising:

- an optical member for making object light incident thereon; and
- an optical splitting member for splitting the object light coming through said optical member into two light beams and for making the two split light beams incident on said first image pickup means and said second image pickup means, respectively, so that image-pickup optical axes of said first image pickup means and said second image pickup means coincide with each other.

Official Notice, it is well known to use:

- an optical member for making object light incident thereon; and

Art Unit: 2615

- an optical splitting member for splitting the object light coming through said optical member into two light beams and for making the two split light beams incident on said first image pickup means, with its own optical system, and said second image pickup means, also with its own optical system, respectively, so that image-pickup optical axes of said first image pickup means and said second image pickup means coincide with each other.

Such an arrangement would be advantageous in obtaining the wide-angle image taken through the first image pickup means and the “normal” image, or non-distorted image, taken through the second image pickup means at the same optical axis allowing the match up between the two images to be identical providing the user correct control over the second image pickup means.

Therefore, it would have been obvious to one of ordinary skill in the art to provide an optical member for making object light incident thereon and an optical splitting member for splitting the object light coming through said optical member into two light beams and for making the two split light beams incident on said first image pickup means, with its own optical system, and said second image pickup means, also with its own optical system, respectively, so that image-pickup optical axes of said first image pickup means and said second image pickup means coincide with each other so as to allow the user precise control over the system in which both images are obtained on the same optical axis.

Regarding Claim 17, see examiners notes claim 6.

Art Unit: 2615

Claims 7 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lassiter (U.S. Patent 6, 624, 846) in view of Busko et al. (U.S. Patent 5, 903, 319).

Regarding Claim 7, Lassiter fails to specifically disclose a camera control system according to claim 1, wherein:

- said image processing means executes an affine transformation on the basis of information on an image-pickup direction of said first image pickup means.

Busko teaches:

- said image processing means executes an affine transformation on the basis of information on an image-pickup direction of said first image pickup means (Column 1 lines 13 – 24, 46 – 55, furthermore, affine transformations for correcting distortion in images acquired by a wide angle lens are well known in the art).

Such a practice of using an affine transformation to remove the distortion from the first image pickup means is a well known method of allowing a user to view the image “normally” or without the distortion inherent to an image picked up by a wide-angle lens.

Therefore, it would have been obvious to one of ordinary skill in the art to include the image processing means executes an affine transformation on the basis of information on an image-pickup direction of said first image pickup means so as to allow the user to view the image normally.

Regarding Claim 18, see examiners notes claim 7.

Art Unit: 2615

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Grage et al. U.S. Patent 5, 005, 083.

Tsuruta U.S. Patent 5, 754, 230.

Elberbaum U.S. Patent Application Publication 2002/0152557.

Morimoto et al. U.S. Patent 4, 593, 029.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eric D Wisdahl whose telephone number is (703) 305-4915. The examiner can normally be reached on 9:00 - 6:00 Mon-Thur every other Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Christensen can be reached on (703) 308-9644. The fax phone number for the organization where this application or proceeding is assigned is (703) 308-5399.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the customer service representative whose telephone number is (703) 306-0377.

Edw



ANDREW CHRISTENSEN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600